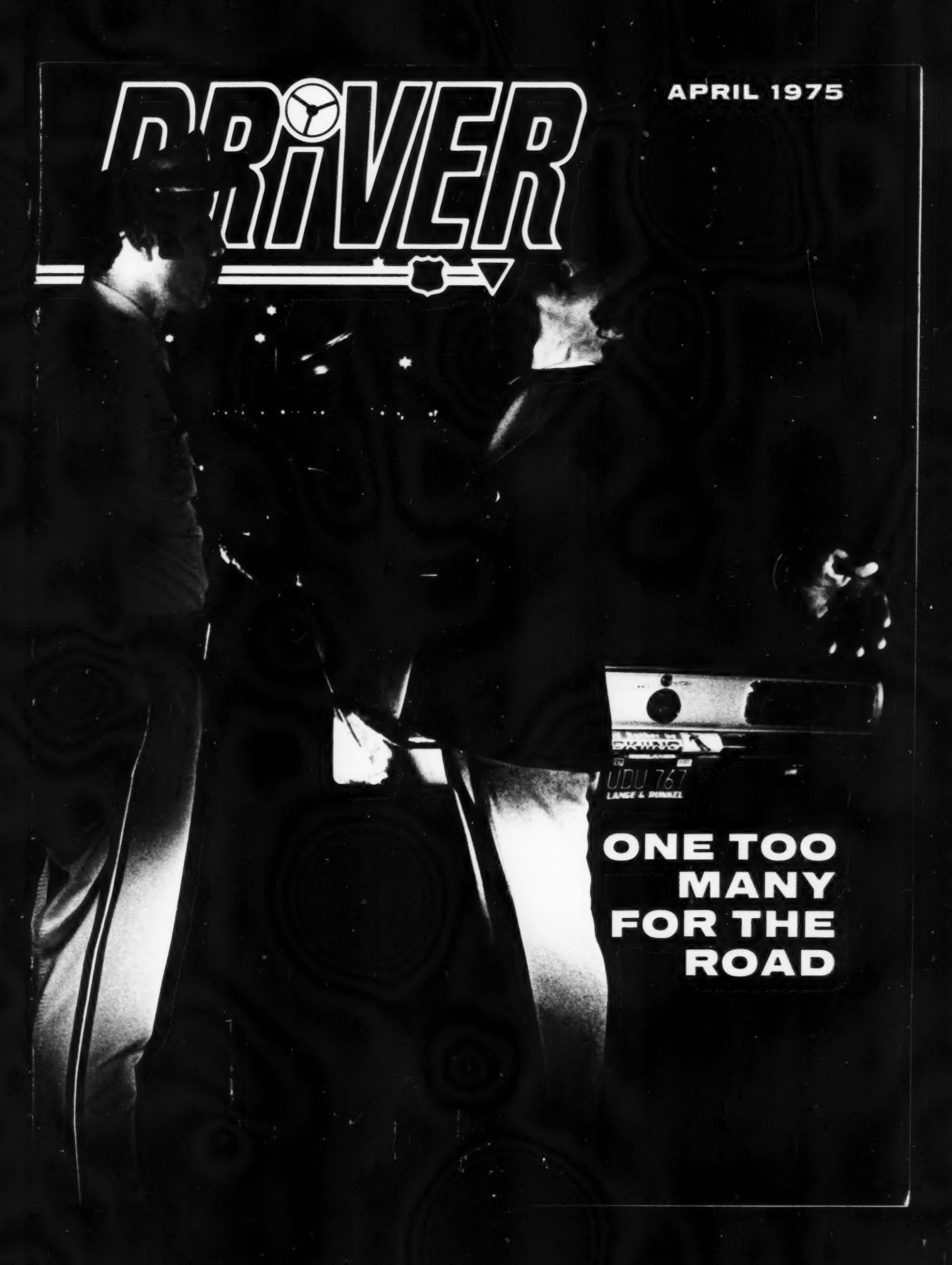
DRIVER

APRIL 1975



ONE TOO MANY FOR THE ROAD

DRiVER

ONE TOO MANY

FOR THE ROAD

by CHRIS BARNETT

This is a story about the reality of being arrested for drunk driving. It is set in California but the facts are similar no matter where you live. This is not a pitch for temperance. It is an attempt to warn everyone of the trouble, the cost, and the humiliation that comes with flunking the "drunk" test.

You don't remember too much. The bartender was flashing those damn lights and the next thing you knew, two blinding red lights were flashing in your rearview mirror. They're chasing someone, you thought, so you'll just pull over and let them by. Only they pulled over behind you.

Your heart started pounding and your stomach wrenched. Did you blow a red light? Driving too fast? Just what you needed, a ticket to hike your insurance premiums. You fumbled for your driver's license. One of the policemen leaned in, looked at you, frowned, and politely asked you to step out of the car and onto the sidewalk.

The questions came quickly: Where were you going? Where had you been? How many drinks did you have tonight? What time is it? You answered all the questions and wanted to get back in your car. Then it dawned on you— why you were stopped. The officer said you had been weaving, driving erratically and had stopped at a green light. "Do you normally stop on a green light, sir? We'd like you to take a few tests."

"Tests? Do you think I'm drunk? I'm tired, that's all."

So here you are, trying to balance on one foot. You managed to walk the imaginary straight line—heel to toe, pivot and walk back. But when you were asked to stand at attention, lean your head back, then touch the tip of your nose with the tip of each index finger twice, you missed it two out of four times.

Once again, the officer asked you how much you had to drink this evening, before and after dinner. "Two scotches," you reply. "Maybe three but they were spaced out during the evening." Then the unthinkable: "Mr. Jenkins," said the officer, "I'm afraid I'm going to have to arrest you for driving under the influence of alcohol." You were read your rights, namely that anything you say could be used against you in court, that you have the right to remain silent and the right to counsel. But you were in a state of numbed shock. You were handcuffed and placed in the back seat of the patrol car. You were off to the station.

continued

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DRIVER

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THE EDITOR SPEAKS

DOUBLE CLUTCH

WATCH OUT FOR "DEALS"

Spring may seem an odd time for us to talk about antifreeze, but of course this is a product most of us use year-round. So we want to pass along a warning: be suspicious if someone offers you an unbelievably good deal on antifreeze.

One company recently told the newspaper **Transport Topics** that it had been approached to buy several truckloads of antifreeze for $2.75 a gallon—with a guaranteed ethylene glycol content of 92.5%.

Somewhat skeptical, the company had the antifreeze tested and discovered an ethylene glycol content of less than 2%. Water made up about 80%, the company said, and there was quite a bit of salt, which would bring the specific gravity up like antifreeze, but which would corrode the cooling system rapidly.

The chemist who ran the tests told the company that because of the costs involved for ethylene glycol, anyone offering antifreeze for much less than $5 per gallon probably does not have a product with much ethylene glycol in it.

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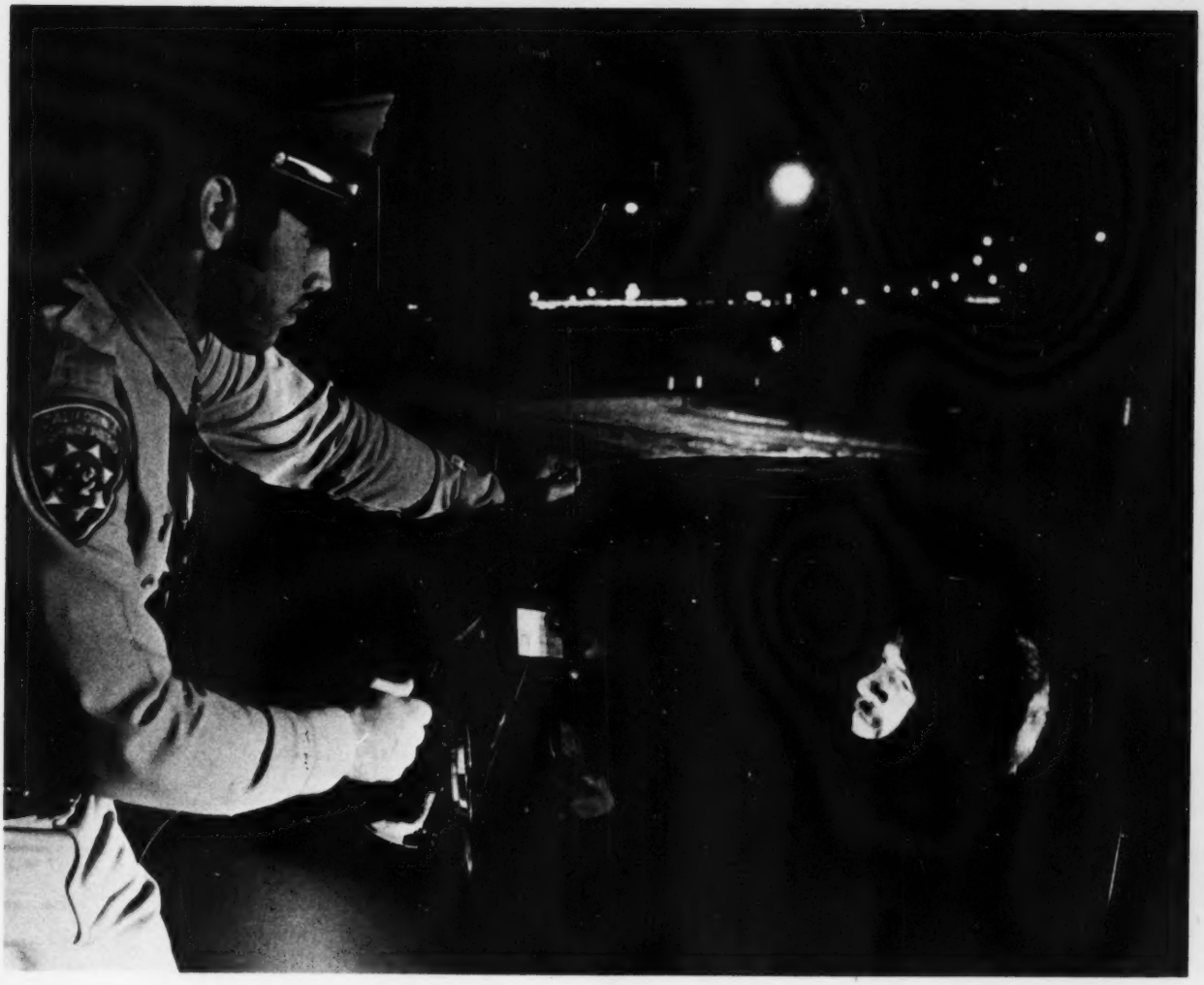
NEXT MONTH
You're a What?!



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ONE TOO MANY FOR THE ROAD

By the end of 1974, some 250,000 Californians acted out this little drama, with only slight variations. It may be a wedding reception, a cocktail party, a bar mitzvah or an impulsive stop at the tavern, but sometime, somewhere, chances are you'll have too much to drink. Your luck will run out.

For most people, a driving-under-the-influence arrest will probably be their first serious encounter with the law—the first time they've been handcuffed, transported in a police car, jailed and in need of bail and a criminal lawyer.

The entire experience will be degrading, humiliating, frightening, frustrating, expensive and possibly dangerous. But then on the streets, the drinking driver in the eyes of society is a far greater potential danger to others.

Still, what happens when you're arrested? Do you automatically go to jail and hope someone is notified to bail you out? Should you try and defend yourself or is it a waste of time? Do you have to take those chemical tests? How can they really prove you're drunk?

To answer these questions and others, *PSA California Magazine* traveled the state interviewing lawmen, lawyers, insurance men, convicted violators and acquitted arrestees. The subject, we found, is unbelievably complex and often a fuzzy mystery to many motorists. Some sobering facts:

The Arrest—Once you've been informed of your arrest, that's it. You're not going to talk the officer out of it so don't try and don't plead for a break. You'll only sound guilty. Don't try to play the big-man-who-knows-somebody-downtown game; it won't work in most California cities. Be polite, courteous, curb your tongue (bite it if you're an arrogant or profane drinker). The flow-

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photos next 3 pages

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continued
ONE TOO MANY
FOR THE ROAD

ing tears and wounded fawn act usually won't fly either, nor will a tear-stained come-hither wink.

You're going to be handcuffed so don't fight it. State law requires a person under arrest to wear the bracelets when riding in a patrol car. Usually, you're cuffed behind your back. If you're alone, your automobile won't be left behind when you're hauled off to the station. The officer will call a tow truck and have your car impounded; you'll pick up the towing and storage tab, usually $25 at the very least. If you had a sober passenger, a relative or a friend, chances are they'll be allowed to drive you home or to the station.

The Chemical Test—Flunking a field sobriety test—missing your nose or walking a crooked line—is no real indication you're intoxicated. Rather, the tests plus other signs (dilated pupils, flushed face, bloodshot eyes, slurred, thick speech, a strong alcoholic breath) can indeed raise the possibility that you're under the influence and that your judgment, reflexes and coordination are affected when it comes to operating an automobile.

But California law holds that a chemical test must be administered before the arrested motorist can be booked. And here is where problems invariably crop up.

The driver is *requested* to submit to one of three chemical tests (breathalyzer, blood test or urinalysis) to determine the alcohol content of his blood. You're requested, not required. But a refusal to take the chemical test can cost you your driver's license for a six-month stretch. Again, it's not automatic, but if you balk at the chemical test you have to persuade a DMV administrative hearing that your refusal was justified. Your chances of hanging on to your license are slim to nonexistent.

The breathalyzer test is administered right at the police station and the results are immediately available. A blood or urine test is also administered at the station, but the findings are often not returned for a couple of days to a couple of weeks, depending on the jurisdictions.

Which test gives the most accurate reading of your blood-alcohol level? Or more realistically, where do you have the best chance of beating the rap? Most lawmen contend that each of the three tests are equally accurate; most people (95 percent) take the breath test because it's quick and convenient.

Attorneys who specialize in defending "deuce" victims (law-enforcement slang for a driving-under-the-influence arrest) claim that if you're really sure you can pass the test, opt for a blood sample. The breathalyzer is probably the "least reliable," maintains Lawrence E. Taylor, a former Los Angeles County deputy district attorney and deputy public defender.

On the other hand, Sgt Lawrence MacKenzie, of the San Francisco Police Department's Accident Prevention Bureau, contends that defense attorneys perfer their clients to take the breathalyzer "so they can attack the credibility of the machine and the operator" in court. Sgt MacKenzie, who just returned from a year at Northwestern University's Traffic Institute, has a precise form on which the operator logs every step and activity of the breath test.

What's more, many cities are replacing the breathalyzer with a new machine called the "gaschromatograph," which has an illuminated cathode ray "scoreboard"; you know instantly if you passed or struck out. Officials of Los Angeles and San Diego police departments claim their new gaschromatographs are faster, simpler, super-accurate and less vulnerable in the courtroom.

What Do the Numbers Mean?—Your score on a chemical test is a measurement of the amount of alcohol in your bloodstream. Or as one San Diego patrolman sardonically explains it: the amount of blood in the alcohol stream. Now if your reading comes up 0.0 percent to .05 percent, you're considered legally sober and despite the arrest you're immediately released. If you registered .05 percent to .10 percent, there is no legal presumption made on your sobriety and generally speaking you're set free. But if that reading goes over .10 percent, you're legally presumed to be under the influence of alcohol.

(Attorney Taylor points out, however, that a .10 percent to .15 percent reading enables a jury to rebut the presumption in court; in other words, it's free to consider other evidence and return with an acquittal. If the reading is .15 percent or higher, the presumption is legally conclusive and the jury must convict if it believes the reading is valid.)

How many drinks does it take to put you over the .10 percent mark? "It depends on a number of factors," explains Larry Buckeye, a San Diego policeman attached to the Patrol Division. "A person's weight, age, tolerance to alcohol all affect the reading. Obviously a burly 220-pound man can have three bourbons and not feel (or register) a thing, whereas those same three bourbons would put a 100-pound woman under the table."

Buckeye carries a "blood alco chart" in his wallet, which shows the estimated percentage of alcohol in the blood de-

continued

ONE TOO MANY FOR THE ROAD

pending on body weight and drinks consumed. A 120-pound man or woman who swigs four cocktails in several hours will probably register .125 percent on a chemical test, legally judged under the influence and booked. A 220-pound person consuming four drinks will, according to the chart, come up with a .068 percent reading with no presumption either way. (The chart is simply an estimate and never used in the arrest procedure.)

Sometimes the readings can be astronomical. Buckeye says he has seen several .40 percent results and quite a few .30 percent "scores" during his tenure. According to Dr. Kurt M. Dubowski, a member of the National Safety Council's Committee on Alcohol and Drugs, a .27 percent to .40 percent alcohol level in the blood induces stupor; a .35 percent to .50 percent level means a coma and often death.

You Flunked the Test—Now What?—Depends on where you live, how you've conducted yourself in the past and how badly you flunked the test. If you're found to be under the influence of alcohol, you'll be booked—fingerprinted, photographed and usually searched. You now have a criminal record. But you don't necessarily go to the "tank."

In San Diego, for instance, the "drunk tank," a large room with padded walls and a naked toilet, was outlawed two years ago. "We found that otherwise innocent people were being mixed with some criminal types and it just wasn't healthy," says Officer Buckeye. "Now the only people who 'hit the pit' (go straight to jail after booking) are belligerent and totally uncooperative types who curse the arresting officer all the way down to the station."

Otherwise, the person booked in San Diego who has no warrants or past histories of jumping bail is immediately released to a friend, relative or neighbor and taken home. The release is O.R. (on your own recognizance—a promise you'll show up in court) and no bail is posted.

The procedure is different in Los Angeles, San Francisco and other California cities. In Los Angeles, some people are released O.R. but many are not. "If you have a sober loved one and $315.52 in cash as bail, you're released after booking," says Sgt Dennis Barrett, watch commander on the morning shift at the LAPD's West Los Angeles Division. Other options include a bail

continued

bondsman (you pay him a nonrefundable $41 fee—10 percent of the bail plus $10) and he puts up a bond guaranteeing you'll come to court.

Sgt Barrett says the only time a person is kept at the station three or four hours is "when he has nobody to take him home and he's just too drunk to be turned loose." An offender who can't post bail is transferred to county jail for a 72-hour wait before arraignment.

In San Francisco, the person "with a couple of horns on who blows (fails) a chemical test is taken up to city prison and allowed to make two phone calls," says Sgt MacKenzie. "But usually he spends a minimum of four hours up there."

A booking is a far cry from a conviction, most defense attorneys contend, but the person who fails the chemical test usually feels defeatist and is less than enthusiastic about defending himself. The decision to fight is a personal one, but here are some points to consider.

A savvy deuce defense attorney will cost you anywhere from $350 (a rock-bottom price) to $10,000 (if there is a manslaughter charge against you as well); the average fee ranges between $750 to $1000. But as attorney Taylor points out, get a clear understanding that your lawyer "doesn't just grab at any disposition he can get. Since no plea is acceptable without the client's consent, make sure you know what he's getting you into," he adds.

According to Taylor, 95 percent of the "deuce" cases not settled at time of arraignment are plea-bargained and only five percent go to trial. In most cases a deal is made, with the district attorney usually reducing the charge to reckless driving. But sometimes that is no "bargain."

Taylor naturally thinks the charge should be fought. In California, a first offender can get 30 days to six months in jail, a $250 to $500 fine or both. But often he gets off with a $250 fine, a year's probation and no jail time. Plus, he can lose his license. A second conviction within five years means a jail sentence of two days to a year, a $250 to $1000 fine and an automatic loss of your driver's license. Third timers generally will do a month to 90 days in jail, but also *could* do up to a year.

Once in court, the defense attorney's primary target is the arresting officer and he unleashes a barrage of questions, motions and other fancy legal footwork designed to discredit his client's accusers and the credibility of their equipment while trying to convince the jury you were not driving under the influence of alcohol despite the prosecution's evidence.

It's clearly a cat-and-mouse game and policemen, disdainful of many defense attorney courtroom tactics, are encouraged to make sure their arrest and testing procedures follow regulations to the letter.

To wipe out any possibility of error and misunderstanding, some police departments are taperecording the arrests, questioning and booking. The Redwood City Police Department both taperecords and videotapes deuce suspects. Sgt MacKenzie not only taperecords the proceedings, he also keeps a personal diary describing the "circumstances" on every chemical test he administers. "I don't like losing cases," he states. "I don't like looking like a jackass in court."

Sgt Barrett of the LAPD also warns his men to take their time and write complete and deadly accurate arrest reports, squeezing in as much detail as possible. The arrest report, he says, is the principal document the arresting officer uses to brief himself prior to going to court. If the case has been delayed repeatedly, the officer's memory on specific details of the case can start to fade and the arrest report serves as a refresher.

Asked if the arresting officers actually do get annoyed when a motorist exercises his right to remain silent, Sgt Barrett says no and the silence is never held against him.

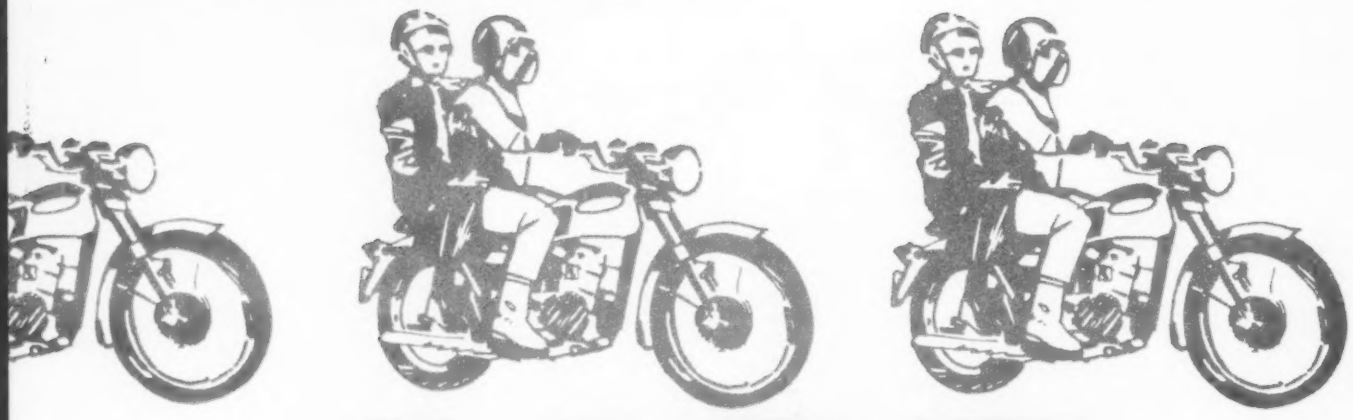
What happens if you're almost home and you're stopped? Won't the officer, as a gesture of courtesy, escort you to the door? Obviously you can't hurt anybody at that point. "We'll bust you on your front porch or in your driveway," vows Sgt Barrett of Los Angeles. "If I ever hear of any of my men escorting a drinking driver home, they'll really catch it from me. I promise you that."

In San Diego, where the police department operates a 15-man "deuce squad," the same holds true. "What happens if you take someone home and they get back in their car and kill somebody?" asks Buckeye. "Who's responsible then?"

Still, Sgt MacKenzie in San Francisco, indeed one of the more zealous deuce sleuths, keeps it all in perspective. "A drunk driver is not the garden-type of criminal. He's not lurking in the doorway ready to pounce on an old lady. He's a victim of circumstances who doesn't want to hurt anybody intentionally."

On the other hand, notes MacKenzie, at the moment stepped-up enforcement is the only solution "we have for controlling the drinking driver and frightening the potential motorist who thinks of driving when he gets a heat on."

The Air Force and the Motorcycle Safety Foundation get together to teach cycle skill and accident-free riding



MSF

If you're a rider you may have noticed this insignia or seen the letters MSF around. If you haven't you should know that MSF stands for Motorcycle Safety Foundation.

Now don't turn off thinking the MSF is a group of nonriding "experts" with crazy ideas and even crazier statistics to back up their ideas. The MSF is a group of motorcycle riders and enthusiasts who are doing good things for you . . . the rider (or future motorcyclist).

One example is the special workshops they conduct for groups like the Air Force, to show people how to teach novice riders the basic skills and knowledge needed to make it on the street—safely. It was at one of these sessions that the MSF received some praise that should give you an idea of how with it they are when it comes to bikes. The words came from a man you might say knows a motor—an ex-motor policeman for the Los Angeles Police Department who was also on the PD's motor demonstration team. Referring to MSF staffers Jim Bloomquist and Jim Smith he said, "I've been to a lot of these so-called motorcycle

continued

training programs, but until this one I'd never seen one where the people in charge knew what they were talking about, let alone being as knowledgeable and involved as these guys."

Well, so much for appraisals of MSF—but what exactly is MSF and what are they doing for motorcycling? Basically the MSF came about this way: The major motorcycle manufacturers got together and decided that rather than have a duplication of efforts in the area of safety education and research, they would chip in and fund one special organization to do this work. This organization, made up of motorcyclists who are motorcycle safety experts, is the Motorcycle Safety Foundation. Their purpose is design, develop and promote motorcycle safety programs nationwide.

BRC

MSF is involved in a wide variety of programs to promote motorcycle safety and public awareness of bikes and bikers. But their main efforts up to now have been directed toward reducing motorcycle accidents through proper training of new riders. It's fact that a lot of new riders hop on a bike and take off with little or no riding experience or training. It's also fact that the majority of accidents involve people who've been riding less than six months. So it's been obvious for some time that something in the way of training (or better training) for beginning riders is needed. The MSF's "something" was the development of a performance-oriented, learn-to-ride program called *The Beginning Rider Course (BRC).*

The BRC was developed with the assistance of motorcycle riders and experts all over the country. It is a complete course that provides a novice rider with the basic knowledge, riding skills, and experience needed to ride safely and responsibly. But the BRC booklet is also packed full of valuable information on areas such as street riding, hazardous-condition riding, and bike maintenance that can benefit all riders. The BRC program was designed to be flexible so it can be used by an individual or in a classroom situation. However, the BRC approach is performance-oriented which means it is set up primarily to be used with behind-the-handlebars experience. The BRC approach to safe riding will be described in more detail later.

WORKSHOPS

Since qualified motorcycle instructors are as scarce as basic motorcycle riding programs, an important aspect of the BRC program is the special instructor workshops MSF conducts nationwide. These workshops are designed to upgrade the quality of rider training by teaching traffic safety instructors how to teach novices to ride.

The workshops center around the use of the BRC, but a variety of training methods and materials are explained and used. The important thing with the workshops is that the instructors get practical experience trying out the various teaching techniques on novice riders. The instructor workshops have been given primarily to high school and college driver education instructors, but the Air Force is now getting in on the act.

THE AF AND MSF

The Air Force first got together with the MSF when they were referred to the Foundation by the Department of Transportation for technical assistance with the four special motorcycle movies the Air Force is currently producing. These movies will be included in the all-new multimedia traffic safety program that will be coming out this summer. But the Air Force realized it had a problem. It was filming the special motorcycle challenge movies because of the interest in motorcycling among its people. But the majority of traffic safety people who would be in charge of presenting the motorcycle material knew little or nothing about motorcycling.

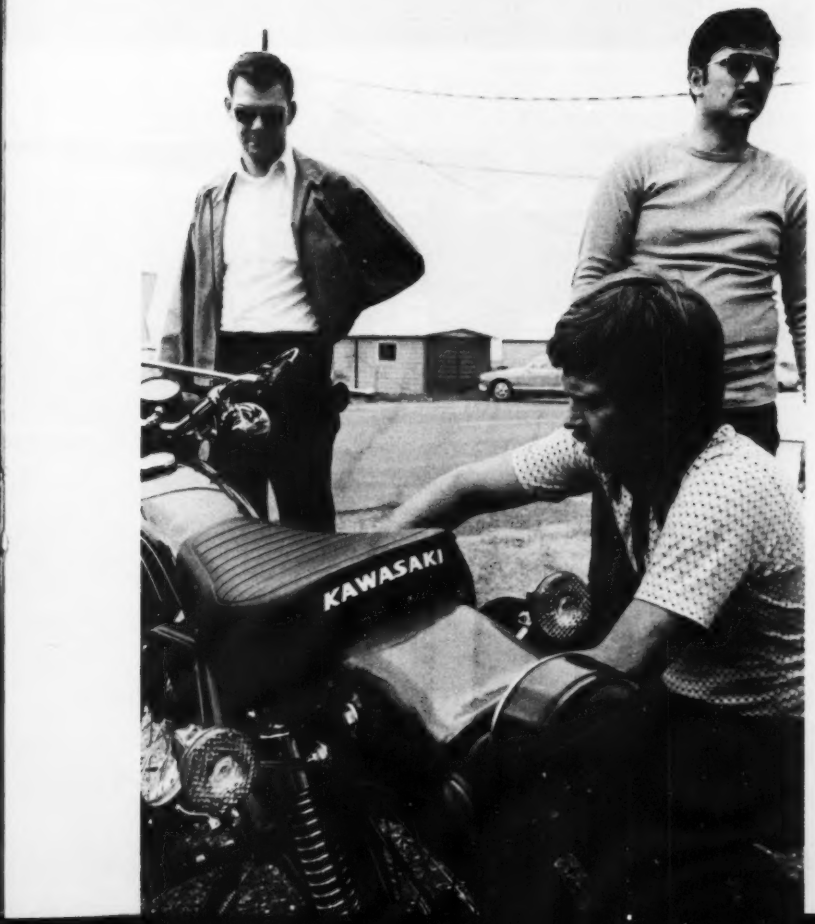
So the Air Force asked MSF to put on a trial workshop at Andrews AFB, Maryland, for personnel who would be working with the traffic safety and/or base motorcycle programs. The idea was to get these people on a motorcycle and give them some background in beginner rider training. That initial workshop was so popular and successful that three more were held at Norton AFB, California, Randolph AFB, Texas; and Eglin AFB, Florida to train as many instructors as possible.

(above)
Motorcycle Safety Foundation (MSF) instructor Jim Smith explains a riding exercise at the Andrews AFB motorcycle workshop. Four of these workshops have been held for AF safety and motorcycle program representatives to acquaint them with techniques for teaching novices to ride correctly and safely.

(right)
Top mechanical condition is stressed by MSF as one of the important parts of fun, trouble-free, safe motorcycling. MSF instructor Jim Bloomquist makes some adjustments on a machine before a workshop riding exercise.

WORKSHOPS MAY BE AVAILABLE AT BASES

Attendees at the four trial Air Force workshops ranged from rank novices who'd never been on a bike, and had previously sworn they'd never get on one, to experienced riders with years of riding time—



many of whom run their respective base's motorcycle club and/or training programs. But despite the differences in riding experience of the attendees, response to the workshops has been 99 percent favorable. In fact, several bases are now using the BRC or parts of it in their base motorcycle programs. And because of the interest in the BRC approach and specifically the instructor workshops, the Air Force is hoping to make MSF workshops available to individual bases in the near future.

IN THE MEANTIME

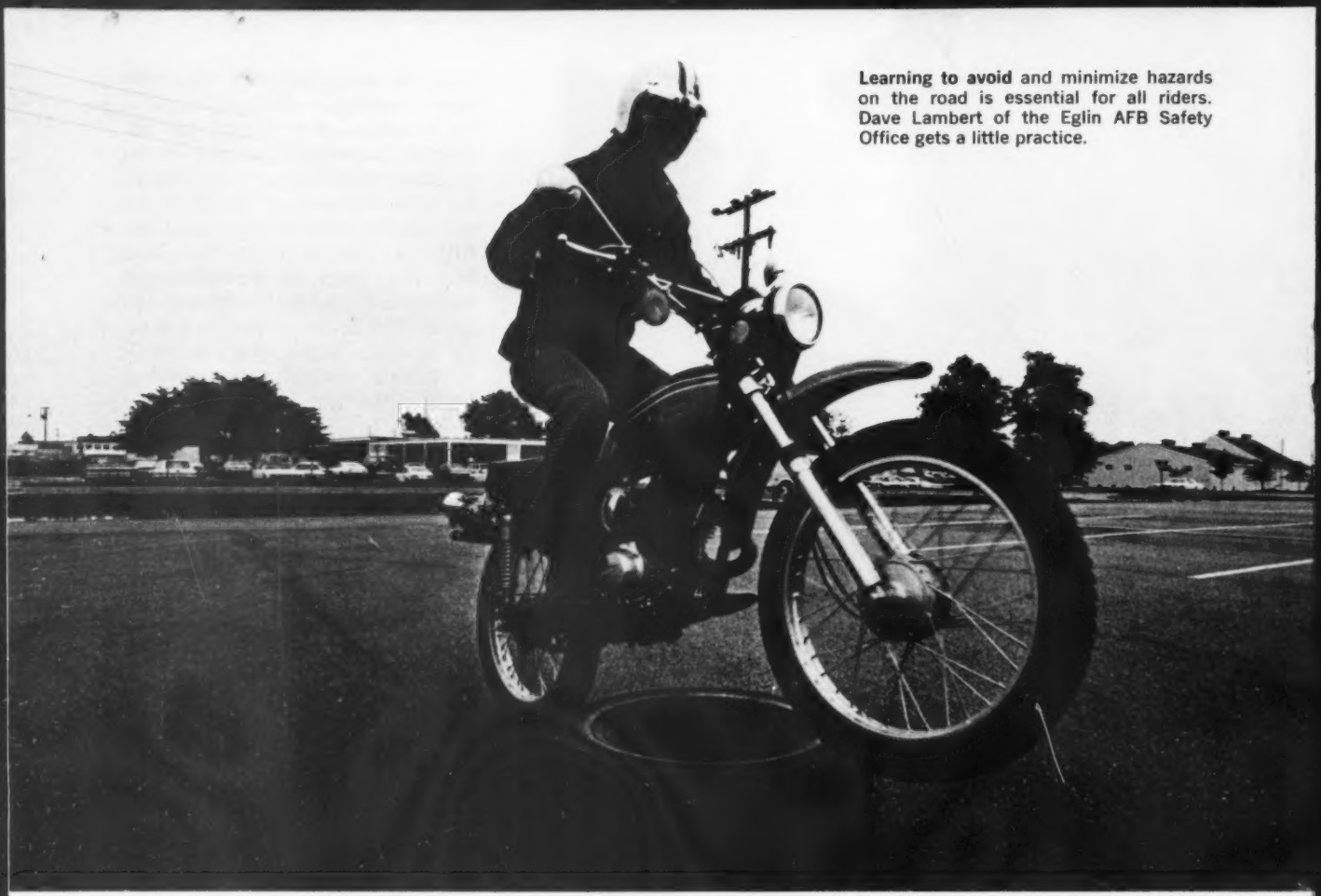
Although base workshops won't be available for a while, if you're thinking about biking it or you're going to be showing a friend or group of friends how to ride, you can still use the BRC for good info on riding correctly and safely. Even if you're an experienced shoe, the BRC makes good reading and you'll probably pick up some good tips or at least be reminded of a few things.

Whatever your situation, you can get information on the BRC and any other motorcycle safety information and assistance from the experts at MSF by writing to MSF, 6755 Elkridge Landing Road, Linthicum, Maryland 21090. Following is more information on the BRC approach to safe motorcycling.

continued

Teaching Novices to ride?

In addition to the BRC and other activities to aid novice riders, MSF has established the first national motorcycle loan program. This program provides for local motorcycle dealers, with the full support of the manufacturers, to loan bikes to schools, military installations, and community groups for learn-to-ride programs. Besides training machines, many dealers also provide assorted training aids and materials such as films. Contact MSF or check with your local dealers for more information on this important loan program.



Learning to avoid and minimize hazards on the road is essential for all riders. Dave Lambert of the Eglin AFB Safety Office gets a little practice.

Riding exercises to build basic skills and rider knowledge is what the BRC is all about.

Off-bike study and preparation is an important part of MSF's **Beginning Rider Course** for novices. Here SSgt Ron Shepard does some off-bike work on-bike. Ron is an officer of the George AFB, CA motorcycle club and also served as a tech representative on one of the new motorcycling films the AF will be releasing this summer. Ron is using the MSF approach to safer riding in his base motorcycle programs.

During riding exercises at the Andrews AFB Workshop, Jerry Johnson from the Offutt AFB Safety Office finds that riding slowly is tougher than it looks.

THE BRC

continued

MSF

While there are a variety of booklets and pamphlets available on learning to ride a motorcycle, the BRC is the only complete learn-to-ride program of its type. But the BRC is also recognized by people like the American Motorcycle Association (AMA) as one of the best sources of basic motorcycling information of any type.

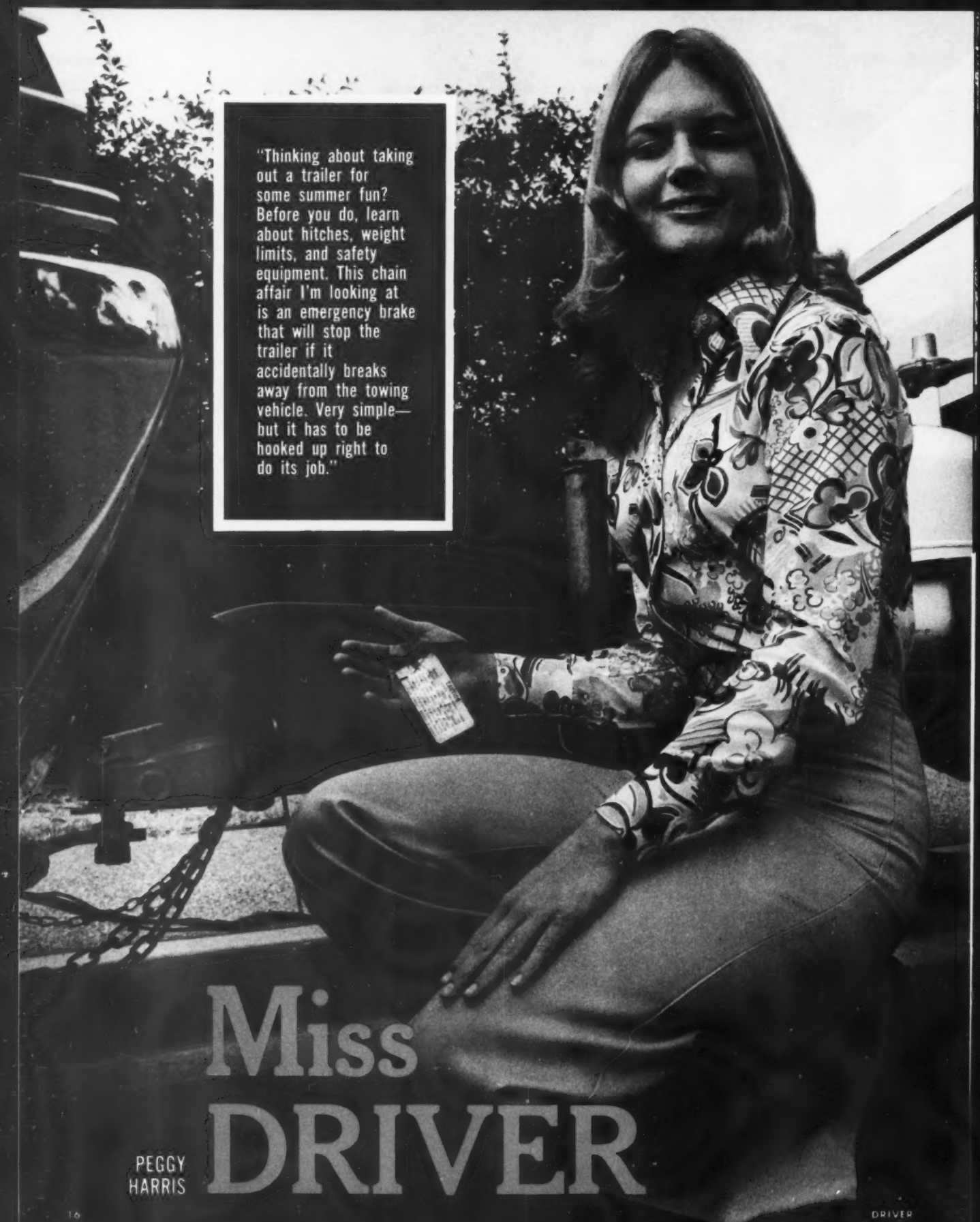
The introduction to the BRC says in part, "Learning to ride a motorcycle safely cannot be learned solely from a book . . . books are helpful because they save you time and provide useful information. *But you learn to ride by riding.*" So the BRC is really a riding course.

However the BRC booklet contains plenty of basic information to get a novice prepared to ride, as well as advanced info about street riding and riding hazards. Subject areas covered include "Knowing the Motorcycle," "Preparing to Ride," which contains a complete section on the use of protective gear; "Riding the Motorcycle," and "Fundamental Riding Skills." The booklet concludes with information on "Routine Riding," "Riding in Traffic," and "Maintenance and Insurance." The BRC student workbook contains other information such as checklists and self-tests.

The BRC instructor's package contains an instructor's manual that outlines riding exercises and experiences. The package also has teaching aids, special transparencies, student exams, and information about conducting on-cycle performance tests.

A variety of pamphlets on safe riding are also available from MSF. These pamphlets are chocked full of good information for all riders. Two important tips from MSF: 1.) Current studies seem to indicate that a lot of motorcycle accidents attributed to other causes are really the result of following too closely by the biker. Keep your following distance by using the two-second rule and adding a little extra cushion when conditions warrant. 2). A recent study by Goodyear showed that overinflating a motorcycle tire slightly has little effect on tire reliability or handling. So, since underinflation is far worse than overinflation, don't be afraid to keep the tires pumped up—especially when you're carrying a load.

Questions about Motorcycles & Safety?
Ask a Friend
Don't Ride Gear ... Get It Get!
Riding Tips For The Motorcyclist
Sharing the Roadway


"Thinking about taking out a trailer for some summer fun? Before you do, learn about hitches, weight limits, and safety equipment. This chain affair I'm looking at is an emergency brake that will stop the trailer if it accidentally breaks away from the towing vehicle. Very simple—but it has to be hooked up right to do its job."

Miss DRIVER

PEGGY HARRIS

continued from page 2

Double Clutch

Along these same lines, **Road & Track** reports that police in Montgomery, Alabama, have been warning motorists of a bogus antifreeze being sold in that city, which is made of nothing but colored water and methyl alcohol. According to an official, "If the radiator hose popped off, then the alcohol could hit a sparkplug and explode."

When you're shopping for antifreeze, remember the old advice—let the buyer beware. Patronize reputable stores and be suspicious of "good deals."

About Miss DRIVER

Seventeen-year-old Peggy Harris loves the outdoors, especially camping. She and her family have camped in almost every area of the United States. Peggy learned a lesson about safe driving in the mountains last summer when her car stalled on an incline and she let it roll back into the car behind her. She says it wasn't her fault the car stalled—it needed a tune-up—but she shouldn't have lost her head and forgotten to hit the brakes.

A Growing Trend?

A New York court has ruled that a driver injured in a crash, who did not use an available seat belt, should not recover money for any injuries that the seat belt might have prevented.

The New York State Court of Appeals ruling involved a case in which a driver was thrown from her car during a collision with a truck. The car rolled over, pinning her legs beneath a rear wheel. The car was equipped with a seat belt but the driver was not wearing it.

During the trial, an expert witness testified that if the injured woman had been wearing a seat belt, she should not have been ejected from her automobile. Had she remained inside the car, she probably would not have been seriously injured.

The jury decided that the woman's suit should be dismissed. She appealed the decision.

The Court of Appeals ruled that the use of a seat belt should not be considered by the jury in determining who was liable for the crash. But when it comes to monetary damages, the court said the jury should then consider whether or not available protective devices would have prevented injuries if they had been used.

This is the first time the "seat belt defense" as it is commonly known, has come before the court in New York although it has been examined in other jurisdictions and is a popular subject for discussion in legal periodicals.

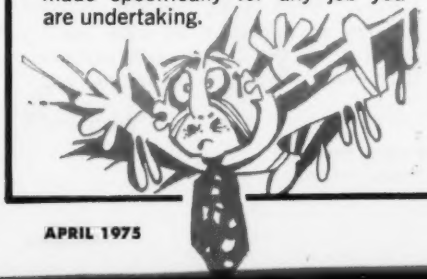
Very Sticky Stuff

There's an adhesive available now that can instantly bond almost anything to anything, including you to yourself. Its chemical name is cyanoacrylate and it is on the market under several trade names.

One drop can bond fingers together or a finger to an eyelid or, worse, can bond eyelids together. If you do get stuck, a gentle rolling motion to break the adhesive gradually from the edges will generally not result in any damage to tissue, but curing times of these adhesives vary from brand to brand. You may have as little as two seconds to act. There is no solvent available for the hardened material.

In case of an accident involving contact with the material, remove contaminated clothing and flush skin or eyes with plenty of water immediately. Remove adhesive from skin with wet paper towels. Eyelids should be held open and the eyes flushed with plenty of water.

Products such as this are not recommended for the backyard mechanic. Your local discount store or auto supply house offers locking and tightening compounds that are made specifically for any job you are undertaking.



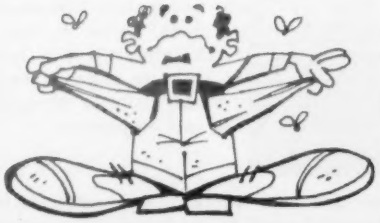
No More Reprints

We knew our "Backyard Mechanic" series was popular with you readers, but we had no idea HOW popular.

It all started with a little notice on the filler page of the May '74 DRIVER announcing the availability of the "Backyard Mechanic" reprint, Volume I. We thought the one announcement wouldn't draw much attention, and surely 1,000 reprints would satisfy the demand. We were wrong, to put it mildly.

Ten thousand postcards and letters later the requests continue to come in. We had to go back to the printer three times for more copies, but all requests have been answered. This thanks to other staff members addressing and licking labels to help our secretary, who now glowers anytime "Volume II" is mentioned.

We are sorry to announce we have run out of Volume I reprints, and the funds and personnel to handle Volume II are not available. If funds become available at a later date we will again offer reprints of the "Backyard Mechanic."



Rear springs sagging?
Tire sidewalls bulging?
Coach leaning sideways?
Then it's time for some

CAMPER TALK

Safety inspections of pickup/camper rigs often uncover one serious problem—overloading. Recreational vehicles too heavy for their suspension systems show up routinely during inspections sponsored by the National Highway Traffic Safety Administration (NHTSA) at national parks. In fact, during one recent inspection two out of three trucks carrying campers had rear end loads greater than the strength capacities of the rear suspension.

When Hill Air Force Base runs their "Camper Special" inspection in the summer, they find more than half the campers going through the line are overweight. The average overload found at Hill was 660 pounds, but many vehicles were 1,000 pounds above prescribed weight for their suspension systems. Since most vehicles going through an inspection on base aren't carrying all the people and supplies they would for a weekend outing, you

continued

Campers line up for inspection at Hill AFB, Utah. Participation is completely voluntary and imposes no obligation on owners. While vehicle is being weighed on base salvage yard truck scales, checklist items are discussed with owner and camper unit data recorded.

Here are some typical examples of poor camper mounting methods. Turnbuckles are often found to be bent and loose, eyebolts not secure against even moderate strains.

Every member of the family should be responsible for certain items.

can bet the overload condition is far worse when the rigs actually get out on the road.

GVW IS IMPORTANT

A lot of camper owners have either never heard of the concept "gross vehicle weight" or completely misunderstand it. The term does not refer to the vehicle's payload. GVW is the combined total weight of truck, camper, supplies, fuel, and people and should not exceed the weight specified by the manufacturer. In fact, some consumer groups such as the Center for Auto Safety maintain that many pickup campers and motor homes have suspension systems which are inadequate even for the maximum the manufacturer states on the rating plate as safe capacity.

You can generally have your loaded vehicle weighed for a dollar or two at a local grain elevator or full-service truck stop. Some bases also have scales (ask your transportation or safety office), and it won't cost you anything.

A vehicle's suspension system typically includes its springs, axles, shock absorbers, and wheels. Overloading can lead to out-of-control crashes.

Even if you avoid an accident, chronic overloading can cause bent axle housings, fast wear on tires, premature failure of shock absorbers and springs, increased wear of brakes, and brake overheating and fading. Front end problems develop more often, particularly alignment.

If your truck has displayed some of these quirks, perhaps you should consider trading up to a larger truck or increasing the weight-carrying capacity of what you have. This means stronger, wider tires and wheels plus heavy springs and shock absorbers.

The overweight problem is compounded by poor camper-mounting methods. Turnbuckles are often found bent and loose, eyebolts not secure against even moderate strains. It is not unusual to see fastening bolts completely missing. The camper owner doesn't have to be a graduate mechanic to note and correct these problems for himself.

TIRES

Most of the trucks that go through the voluntary inspection line at Hill have at least two tires showing excessive wear or serious sidewall deteriora-

tion, and wear patterns frequently indicate neglect of proper front end alignment. There is also a tendency for owners to use different size tires on front and rear wheels without carrying appropriate spares.

A truck that rocks from side to side, veers into other lanes, and bounces excessively over railroad tracks is unstable. When a big truck roars past you, does the camper begin to wobble? When you give the steering wheel a correction, does it respond fast enough? In some cases, instability is caused by inadequate tires. Few owners realize that a standard truck tire isn't built to hack coach duty.

Underinflation is another bogie. It not only shortens tire life as much as 25%, but it also reduces traction. In an emergency situation, soft tires can actually roll right off the wheel rims. Soft casings also allow the coach to rock, wobble and sway, although weak springs and inadequate shock absorbers are more frequently the cause.

Trucks with heavy campers can fishtail just like a trailer in tow. This can be caused by a low tire on one side of the truck, or the coach may be mounted off center. To find out, measure from the front of the coach to the back of the cab on each side. You may find it an inch on one side, and as much as three or four inches on the other. Just that much difference can cause imbalance.

Loosen the bolts and reset them so the coach is centered properly. If you need to look further, check for a weak or broken spring leaf on one side. The poblem is heightened by tail-heavy cargo, so move all loose gear as far forward as practical.

Many times a well-balanced coach will cause rear-end sag because the wheelbase of the truck is too short for it. You see this on older trucks, particularly those with short wheelbases. The critical distance is the cab-to-axle measurement: From the rear of the truck cab to the center of the rear axle. The longer this is, the better the truck will haul a coach without sag.

Sometimes the coach extends back several feet behind the end of the cargo box, as when an 8-foot box is used to haul an 11-foot slide-in coach. That extra three feet makes a grand total of seven or eight feet of coach sticking out behind the rear axle. In such cases, the rear suspension system and rear tires must be of maximum capacity.

Front suspension is checked while camper is on the scales.

BRAKES

Recreational vehicles have an even greater requirement for prompt, fade-free brake response than other vehicles. If brakes begin to squeak, screech, or grab, be suspicious. Try the brakes several times in succession on a steep section of road where it's safe to do so. If the pedal becomes very stiff and the brakes heat up, smoke or fade, beware. Brakes will get hot, and some fading is normal with heavy loads. But "greasy" feeling brakes that do not respond can mean trouble. Brakes that continually overheat and fade on downhill grades can also mean that you have picked up some bad driving habits.

INSIDE HAZARDS

The operation of gas appliances while the camper is in motion is a common mistake. Propane is readily ignited by a spark, and more than a few carefree vacationers have gotten their names in the newspapers when their rig exploded because of leaking gas.

Many rigs have their gasoline filler neck located almost immediately adjacent to the camper stove. This can mean trouble if the pilot light is on during refueling.

Before each trip, all gas lines should be tested for leaks. Check the appliances. If you smell gas, get hold of a reputable repairman immediately.

When testing for gas leaks, use a soap solution or a special leak-test fluid. If air bubbles appear, leaks are present; turn off the gas at the tank. When testing the entire system for leaks, begin by shutting off all internal appliances carefully. Open the main valve at the tank and test one appliance at a time, shutting it off before progressing to the next one.

If your supply fails during the preparation of a meal or while any appliance is on, immediately shut off all gas valves inside the coach.

ELECTRICAL SYSTEMS

What most of us call common sense for electrical work is based on our understanding of rules for working around the house. In a dwelling, there is a well-grounded neutral system which is permanently connected to earth and to a power company system.

But RVs are different. They are plugged into the camp service, and it

continued

An example of a proper truck and camper match, with the camper balance point within the truck limitations. Don't be confused by the terms half-ton, three-quarter ton, and one-ton when talking about trucks. What is important to you is balancing truck capacity to coach weight. First weigh the truck for its legal rating. When you subtract the weight of the empty truck from the GVW rating, the resulting figure is the true payload —that is, the coach with all supplies, gear, and passengers.

continued

can happen that the plug or the wiring up to the plug gets reversed. This would make the frame "hot." Therefore, the rules for the RV are different from those in the house, and your "home electrician" common sense is not enough. *Read the rules for your RV.*

If anyone gets a shock from your rig, disconnect the power supply promptly and do not reconnect until a qualified person has checked it. When you hire electrical work done, look for an electrician who knows the national electric code for travel trailers. Many good electricians simply are not up on the peculiarities of RVs and they can make mistakes.

EMERGENCY ESCAPE

Since the average truck camper does not have a forward escape hatch, every owner should plan emergency escape routes to be used in case of fire and every person occupying the camper should be drilled on what to do.

It is not particularly difficult to install an escape door and it doesn't make much difference whether it is a pop-out roof vent, a small door, or a full-framed emergency door. It should be located in the part of the coach most likely to trap people in case of fire or upset. The roof is the usual choice. Hardware should be designed so that the emergency exit can be opened with a minimum of physical effort even by a child; in other words, a single latch, lever, or trigger. Until you have an escape door, carry an axe inside the camper.

An adequate fire extinguisher should be part of the camper's regular equipment and every occupant should be briefed on how to use it (see article on fire extinguishers in March '75 DRIVER).

CHILDREN

Because camping is a family activity, special attention should be given to the safety of young children. They should never be left to play alone in a coach where liquid propane appliances can be handled. Accidentally turning a valve could mean fire or explosion.

Young children should not be allowed to stay in the camper alone while traveling, no matter how safe it seems. Youngsters have been known to wake up from naps, get out of bed, open the outside door and fall out onto the highway while their parents in the truck drove ahead without the slightest hint that anything was wrong.

NEW BUYERS

If you are buying a new truck and coach this year, you will find that federal standards have made the job easier. You will receive accurate weight information and details about the center of gravity.

This information will be useful to you in avoiding overloading and improper load distribution in your truck/camper combination and so will prevent accidents that can result from the effects these conditions have on steering and braking. Trucks will have a label showing the cargo weight rating and a warning that the camper's center of gravity should fall within the truck's recommended center of gravity zone when installed.

CHECKLISTS

The first thing new camper owners learn is the importance of having a checklist for everything. The one we offer here was developed by the safety office at Hill Air Force Base. Use it faithfully and you'll have a good trip—even if you forget the bacon or the fishing poles.

PICKUP/CAMPER SAFETY CHECKLIST

This checklist is intended as a basic guide for the inspection of your truck, camper, and camping practices. It indicates some desirable features that a rig should have and suggests steps you can take to increase your driving and camping safety.

I. PICKUP

A. Mechanical condition:

Steering–inspect and repair as necessary.
Brakes–inspect and repair as necessary.
Drive train–inspect and repair as necessary.
Headlights–aimed properly and clean.
Other lights and signals–functional and clean.

B. Gross vehicle weight (GVW).

Rated GVW should equal or exceed the total combined weight of truck + camper + supplies + fuel + people.

C. Tires and wheels:

Matched tires on all four wheels.
Adequate size.
Proper inflation.
Sufficient load rating.
Tread deep enough to remain effective.
No cuts or bruises.
Balanced.
Aligned.

D. Safety and emergency equipment:

Tool kit.
Jack–capable of supporting vehicle weight.
Chocks.
Flares or reflectors.
Spare bulbs.
Fuses.
Fan and generator belts.
Radiator water and sealant.
Siphon hose.
Flashlight.
Mirrors–must give adequate rear vision on both sides of camper and be clean.
Fire extinguisher–dry chemical type, multipurpose (A-B-C rated), at least 2 to 5 pounds in capacity, preferably rechargeable (install inside cab).

E. Routine preventive maintenance accomplished as required.

II. CAMPER.

A. Attachment to truck–bolted to frame if possible.

B. Electrical system:

Outlets and wiring–checked and in good condition.
110-volt extension cord.
Warning plates on camper sides –designate proper voltage applications at each attachment point.

C. Liquid propane gas system:

Cylinders–stored in proper horizontal position–no more than 80% full.
Cylinder storage area–well ventilated.
Gas lines–checked for leaks (USE SOAP BUBBLE SOLUTION OR LEAK-TEST FLUID).
Pilot lights–off when moving; off when refueling.
Gas appliances–camper well ventilated when in use.
Warning plates–on camper sides to indicate cylinder storage position, leak check procedures, and type of gas to be used.
Warning plates–inside camper to indicate hazards of open flame use without ventilation.

D. Camper safety equipment and features:

Escape hatch in forward roof.
Safety glass.
First aid kit.
Fire extinguisher–all-purpose, dry chemical type to supplement primary extinguisher inside cab.
Axe–for use if camper does not have an escape hatch.
Emergency exit plan–including a marked place to use the axe.

E. When traveling:

Spotter–use when backing.
Children riding in camper–none.
Rear or side doors–locked.
Camper interior–no loose items.
Equipment–tied down or stowed.
Refrigerator door–fastened shut.
All drawers and other doors–secure.
Pilot lights–out.
Portable water tanks–flushed and sanitized before filling.

Never burn charcoal in a camper or other enclosed area. Combustion of charcoal liberates carbon monoxide and will result in potentially fatal carbon monoxide poisoning.

Planning to rent a trailer for an inexpensive vacation? Be sure to take time for preparation and practice.

Trailer Towing

It's hard to hide a mistake made with anything as big as a car and trailer combination. So the thing to do is not make mistakes when pulling a trailer. Just because there are many cars hauling trailers today does not mean it is all that easy. Trailer towing requires preparation and practice.

Whether you plan to haul a camping trailer, travel trailer, boat, snowmobile, or trail bike, the first and foremost thing to do is study up on trailer towing. Learn about hitches and wiring, weight limits, extra-duty equipment and modifications that may have to be made on the towing vehicle.

Forget the idea that you can just slip on a bumper hitch, hook up a trailer and drive off. Some people do this, but then some people seem to like needless trouble.

Your car has limits. It can handle only so much trailer load. How much depends on many factors. Obtain advice about the type of towing equipment and modifications your car will need for the type and weight of trailer you expect to pull. Make certain the hitch will carry the load. And be sure it is installed properly so that the load is distributed to suitable parts of the car's frame.

Ask about gross weight, engine size, suspension, cooling system and generator requirements, axle ratios, brakes, and tires. Find out if your trailer needs its own brakes, or if it is light enough to be controlled by your car's weight and brakes.

If you are ordering a new car and you plan to haul a trailer, this is the best time to order the extra-service equipment your car should have. Consult with the dealer to find out what you need in terms of engine power and equipment and axle ratio for the type and weight of trailer you will be hauling.

If you pull a trailer often, it is quite likely your car will need more frequent service. Transmission fluid, rear axle fluid, and engine oil changes are required more frequently along with checks on the brake system. See what your Owner's Manual recommends.

Before attempting to negotiate public roads, the novice trailer hauler should find a quiet, roomy place and, keeping safety, local laws, and courtesy in mind, practice the basics of maneuvering with a trailer. Note the difference in acceleration, braking, and turning. Practice parking and backing into imaginary spaces. It's different!

You will find, for example, that you have to turn the steering wheel in the opposite direction initially when you want to back up and point the trailer in the direction you want it to move. Take along a helper to work outside the car when you practice and help guide and warn you of other traffic.

Maintain your trailer as you do your car—carefully and thoroughly. Carry a spare wheel and tire, and a

spare set of wheel bearings plus the tools to install them. In regard to wheel bearings on your trailer, check them for grease periodically and especially before you take the trailer out for the first time after a long layover.

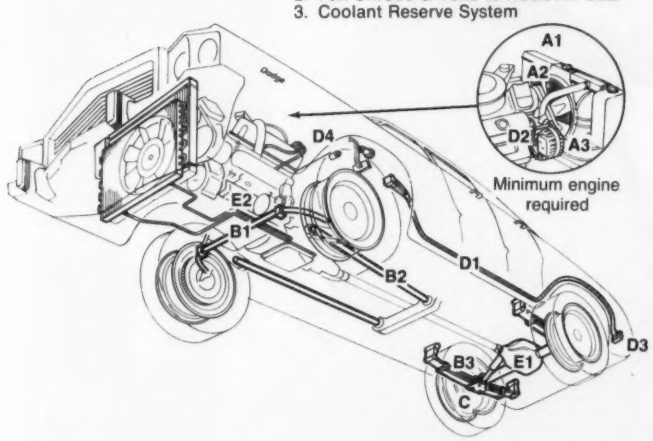
Recreational vehicles greatly enhance the pleasures of our automobiles and open a wide variety of lower-cost travel enjoyment. But do not lose sight of the fact that trailer towing is a highly responsible undertaking—one that is treated less seriously than it should be by some drivers.

When you are on the road, remember that at turns you have to cut a wider arc to include the extra length of your car-trailer combination. Allow extra room when you move out to pass and when you return to your lane. And always use your turn signals. Also, allow extra time for passing because your acceleration will be reduced. Double the normal following distances on urban roads. On highways and freeways, allow at least 500 feet of following distance.

Really pay attention to your defensive driving techniques to avoid hard braking which can cause dangerous jackknifing. Reduce your normal highway speeds by 10 to 15 miles per hour. Just about all of the states have a maximum speed for cars towing trailers. State road maps usually indicate what this speed is and also tell about any specific laws regarding trailer hauling.

EQUIPPING YOUR CAR FOR TRAILER TOWING

A. MAXIMUM COOLING (INCLUDES)
1. High Capacity Radiator
2. Fan Shroud & Yoke to Hood Air Seal
3. Coolant Reserve System



B. HEAVY DUTY SUSPENSION (INCLUDES)
1. Larger Front Sway Bar
2. Larger Torsion Bars
3. Higher Rear Leaf Spring Rate

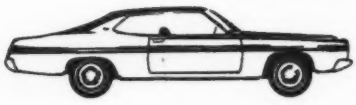
C. EXTRA-WIDE WHEEL RIMS
Dart: 5.5"
Charger/Coronet: 6.0"
Polara/Monaco: 6.5"

D. WIRING PACKAGE
1. Trailer Wiring Harness
2. Chrysler 60 Amp. H.D. Alternator
3. Variable Load Turn Signal Flasher
4. Heavy Duty Stop Lamp Switch

E. OTHER KEY ITEMS
1. Axle — 3.23-1
2. Auxiliary Trans. Oil Cooler
— Charger/Coronet
— Polara/Monaco

NOTE: All items in basic Trailer Tow package from Dodge. Items A, B & C in Dodge Heavy Duty Package. Items D1-4 available in separate Trailer Wiring Package.

DODGE NEWS PHOTO



1975 Manufacturer/Car line	Engine size (cu. in. disp.)	Cylinders	Carburetor (barrels/fuel inj.)	Catalyst	Fuel economy (miles per gal.) City	Hwy.
American Motors						
Gremlin	232	6	1		19	24
	258	6	1		21	30
	304	8	2	X	14	19
Hornet	232	6	1		18	24
	258	6	1		17	25
	304	8	2	X	14	19
Hornet Wagon	232	6	1		18	24
	258	6	1		17	25
	304	8	2	X	14	19
Matador	232	6	1	X	14	19
	258	6	1		16	19
	258	6	1	X	15	21
	304	8	2	X	13	17
	360	8	2	X	13	15
	360	8	4	X	12	16
	401	8	4	X	11	15
Matador Wagon	258	6	1		16	19
	304	8	2	X	13	17
	360	8	2	X	13	15
	360	8	4	X	12	16
	401	8	4	X	11	15
Audi						
Fox	97	4	FI		21	34
100	114	4	FI		18	28
BMW						
2002	121	4	2		19	30
530	182	6	FI		12	15
3.0 S	182	6	FI		12	15
Buick						
Apollo	250	6	1	X	16	21
Skylark	231	6	2	X	16	24
Apollo/Skylark	260	8	2	X	15	19
	350	8	2	X	14	19
	350	8	4	X	14	18
Skyhawk	231	6	2	X	19	25
Century/Regal	231	6	2	X	16	24
	350	8	2	X	12	19
	350	8	4	X	13	20
Century Wagon	350	8	4	X	12	16
LeSabre	350	8	4	X	12	16
	400	8	4	X	12	15
	455	8	4	X	12	15
Estate Wagon	400	8	4	X	11	15
	455	8	4	X	11	15
Electra	400	8	4	X	11	15
	455	8	4	X	11	15
Riviera	455	8	4	X	12	15

1975 Mileage Rates

The cash rebate system on certain new car purchases has renewed buyer interest. But since gas prices will remain high, and availability may be limited, it's smart to know what mileage to expect from the car you are considering. Buying the most fuel-efficient new car that meets your needs will help to conserve energy, save you money, and contribute to a cleaner environment.

To help you along these lines, DRIVER is reprinting this Environmental Protection Agency listing of over 250 new car/engine combinations that meet the 1975 emission standards and are certified for sale in the U.S. You may obtain your own copy of this listing, which should be

continued

Manufacturer/Car line	Engine size (cu. in. disp.)	Cylinders	Carburetor (barrels/fuel inj.)	Catalyst	Fuel economy (miles per gal.) City	Hwy.
Cadillac						
Cadillac	500	8	4	X	11	16
Fleetwood 75	500	8	4	X	11	14
Eldorado	500	8	4	X	11	16
Chevrolet						
Vega	140	4	1	X	19	28
	140	4	2	X	22	29
Vega Kammback	140	4	1	X	19	28
	140	4	2	X	21	29
Monza	140	4	2	X	21	29
	262	8	2	X	15	23
Nova	250	6	1	X	16	21
	262	8	2	X	14	18
	350	8	2	X	14	19
	350	8	4	X	13	20
Camaro	250	6	1	X	16	21
	350	8	2	X	14	19
	350	8	4	X	13	20
Chevelle	250	6	1	X	16	21
	350	8	2	X	13	18
	400	8	4	X	13	17
	454	8	4	X	11	16
Malibu Wagon	350	8	2	X	12	18
	400	8	4	X	11	17
	454	8	4	X	11	15
Chevrolet	350	8	2	X	12	18
	400	8	4	X	11	17
	454	8	4	X	11	15
Chevrolet Wagon	400	8	4	X	11	15
	454	8	4	X	10	14
Monte Carlo	350	8	2	X	13	18
	400	8	4	X	13	17
	454	8	4	X	11	16
Corvette	350	8	4	X	13	20
Chrysler						
Cordoba	318	8	2		11	16
	318	8	2	X	13	17
	360	8	2	X	13	22
	400	8	4	X	11	17
Chrysler	360	8	2	X	11	18
	400	8	2	X	11	15
	440	8	4	X	10	16
Chrysler Wagon	400	8	2	X	10	15
	440	8	4	X	10	16
Imperial	440	8	4	X	10	16

1975 Manufacturer/Car line	Engine size (cu. in. disp.)	Cylinders	Carburetor (barrels/fuel inj.)	Catalyst	Fuel economy (miles per gal.) City	Hwy.
Datsun						
B-210	85	4	2		27	39
710	119	4	2		22	33
710 Wagon	119	4	2		22	33
610	119	4	2		22	33
610 Wagon	119	4	2		20	29
Dodge						
Dart	225	6	1	X	17	23
	318	8	2		11	16
	318	8	2	X	13	20
	360	8	4		13	19
Coronet Charger	318	8	2		11	16
	318	8	2	X	13	17
	360	8	2	X	13	22
	400	8	4	X	11	17
	440	8	4	X	10	15
Coronet Wagon	318	8	2	X	12	17
	360	8	2	X	11	18
	400	8	4	X	11	16
Monaco	318	8	2	X	12	17
	360	8	2	X	11	18
	400	8	2	X	11	15
	440	8	4	X	10	15
Monaco Wagon	400	8	2	X	10	15
	440	8	4	X	10	16
Ford						
Pinto	140 (2.3L)	4	2		18	26
	171 (2.8L)	6	2	X	16	22
Pinto Wagon	140 (2.3L)	4	2		18	26
	171 (2.8L)	6	2	X	15	22
Mustang II	140 (2.3L)	4	2		18	26
	171 (2.8L)	6	2	X	15	22
	302	8	2		10	18
Maverick	250	6	1		14	18
	250	6	1	X	16	21
	302	8	2		10	18
	302	8	2	X	13	18
Granada	250	6	1		14	18
	250	6	1	X	15	20
	302	8	2	X	12	16
	351	8	2		12	16
Torino Elite	351	8	2	X	11	16
	400	8	2	X	10	14
	460	8	4	X	10	16
Torino Wagon	351	8	2	X	11	15
	400	8	2	X	10	14
	460	8	4	X	10	15

Manufacturer/Car line	Engine size (cu. in. disp.)	Cylinders	Carburetor (barrels/fuel inj.)	Catalyst	Fuel economy (miles per gal.) City	Hwy.
Ford	351	8	2	X	11	15
	400	8	2	X	10	14
	460	8	4	X	10	16
Ford Wagon	400	8	2	X	9	14
	460	8	4	X	10	15
Thunderbird	460	8	4	X	10	15
Lincoln-Mercury						
Comet	250	6	1		14	18
	250	6	1	X	16	21
	302	8	2		10	18
	302	8	2	X	13	18
Monarch	250	6	1		14	18
	250	6	1	X	15	20
	302	8	2	X	12	16
	351	8	2		12	16
Montego Cougar	351	8	2	X	11	16
	400	8	2	X	10	14
	460	8	4	X	10	16
Montego Wagon	351	8	2	X	11	15
	400	8	2	X	10	14
	460	8	4	X	10	15
Mercury	400	8	2	X	10	14
	460	8	4	X	10	15
Mercury Wagon	400	8	2	X	9	14
	460	8	4	X	10	15
Lincoln Continental	460	8	4	X	10	15
Continental Mark IV	460	8	4	X	10	15
Mercedes-Benz						
240D	147	4	FI		24	31
300D	183	5	FI		24	31
230	141	4	1	X	16	20
280 280C	167	6	4	X	15	20
280S	167	6	4	X	15	20
450 SE SEL	276	8	FI	X	11	17
450 SL SLC	276	8	FI	X	11	17
Oldsmobile						
Omega	250	6	1	X	16	21
	260	8	2	X	15	19
	350	8	2	X	14	19
	350	8	4	X	14	18
Starfire	231	6	2	X	19	25
Cutlass	250	6	1	X	16	21
	260	8	2	X	15	19
	350	8	4	X	15	20
	455	8	4	X	13	19

continued

1975 MILEAGE RATES

up-dated soon, by writing: Fuel Economy, Pueblo, Colorado 81009. (Many manufacturers produce cars for sale in California that are different from cars sold elsewhere in the U.S. Therefore, cars available for sale in California are listed in a separate booklet.)

The cars listed were tested by pro drivers on a dynamometer to make the results more scientifically comparable. Details of how the tests were conducted are included in the booklet listed above. The important thing is to remember the factors that affect fuel economy. They are weight, optional equipment, condition of the engine, and driving habits. The driver who engages in conservative, safe driving and avoids long periods of idling and uneven speed will be rewarded by better mileage, and probably live a longer life.

ADDITIONAL LISTING

This further listing was made available recently by the EPA. "nc" indicates no converter. Carburetor information and the number of cylinders is not included with this listing.

Name	MPG C-H	Eng. c. i.
Alfa Romeo Alfetta, nc	19-25	120
Alfa Rom. 2000 Spider, nc	19-27	120
AMC Pacer, nc	18-24	232
AMC Pacer, nc	17-25	258
Buick LeSabre Limousine	11-15	455
Bricklin, nc	12-17	351
Checker Marathon Wagon	12-17	350
Chrysler Cordoba, nc	11-18	360
Chrysler Cordoba, nc	10-17	400
Datzun 260-Z, nc	16-25	168
Dodge Coronet Charger, nc	11-18	360
Dodge Coronet-Charger, nc	10-17	400
Dodge Coronet Wagon, nc	10-14	400
Dodge Monaco, nc	10-14	400
Ferrari Dino 380 GT-4, nc	8-15	179
Fiat 128, nc	20-28	79
Fiat 128 Wagon, nc	20-28	79
Honda Civic, nc	27-39	75
Lamborghini Urraco, nc	8-14	150
Lincoln-Mercury Bobcat, nc	18-26	140
Lincoln-Mercury Bobcat	15-22	171
Lincoln-Mercury Bobcat Wagon, nc	18-26	140
Maserati Merak, nc	10-17	181
Maserati Khamsin, nc	9-13	301
Maserati Bora, nc	9-13	301
Oldsmobile Delta 88	12-17	400
Plymouth Road Runner-Fury, nc	11-18	360
Plymouth Road Runner-Fury, nc	10-17	400
Plymouth Fury Wagon, nc	10-14	400
Plymouth Gran Fury, nc	10-14	400
Rolls-Royce Silver Shadow	9-12	412
Triumph TR-7, nc	20-29	122
Volkswagen Rabbit, nc	24-38	90
VW Dasher, nc	23-36	90
VW Dasher Wagon, nc	23-36	90
VW Scirocco, nc	24-38	90

1975

Manufacturer/Car line	Engine size (cu. in. disp.)	Cylinders	Carburetor (barrels/fuel inj.)	Catalyst	Fuel economy (miles per gal.) City	Hwy
Cutlass Wagon	350	8	4	X	14	18
	455	8	4	X	13	18
Delta 88	350	8	4	X	14	18
	455	8	4	X	13	18
Custom Cruiser Wagon	400	8	4	X	11	15
	455	8	4	X	12	16
Olds 98	400	8	4	X	11	15
	455	8	4	X	12	16
Toronado	455	8	4	X	11	16
Peugeot						
504	120	4	2		20	27
504 Wagon	120	4	2		17	25
Plymouth						
Valiant/Duster	225	6	1	X	18	23
	318	8	2		11	16
	318	8	2	X	13	20
	360	8	4		13	19
Road Runner/Fury	318	8	2		11	16
	318	8	2	X	13	17
	360	8	2	X	13	22
	400	8	4	X	11	17
	440	8	4	X	10	15
Fury Wagon	318	8	2	X	12	17
	360	8	2	X	11	18
	400	8	4	X	11	16
Gran Fury	318	8	2	X	12	17
	360	8	2	X	11	18
	400	8	2	X	11	15
	440	8	4	X	10	15
Gran Fury Wagon	400	8	2	X	10	15
	440	8	4	X	10	16
Pontiac						
Astre	140	4	1	X	19	28
	140	4	2	X	21	29
Astre Wagon	140	4	1	X	19	28
	140	4	2	X	21	29
Ventura	250	6	1	X	16	21
	260	8	2	X	15	19
	350	8	2	X	14	19
	350	8	4	X	14	18
Firebird	250	6	1	X	16	21
	350	8	2	X	13	18
	350	8	4	X	12	18
	400	8	4	X	13	18

Manufacturer/Car line	Engine size (cu. in. disp.)	Cylinders	Carburetor (barrels/fuel inj.)	Catalyst	Fuel economy (miles per gal.) City	Hwy
Lemans	250	6	1	X	16	21
	350	8	2	X	12	18
	350	8	4	X	13	17
Lemans/Grand AM	400	8	4	X	13	18
Grand AM	400	8	2	X	12	17
	455	8	4	X	12	17
Lemans Wagon	400	8	2	X	12	17
	400	8	4	X	12	15
Pontiac	400	8	2	X	12	17
	400	8	4	X	12	15
	455	8	4	X	11	18
Pontiac Wagon	400	8	4	X	11	15
	455	8	4	X	11	15
Grand Prix	400	8	4	X	13	18
	455	8	4	X	12	17
Porsche						
914	109 (1.8L)	4	FI		21	33
	120 (2.0L)	4	FI		20	30
Saab						
99	121	4	FI		21	27
Toyota						
Corolla	97	4	2		21	33
Corolla Wagon	97	4	2		21	33
Corona	133	4	2		19	28
Corona Wagon	133	4	2		19	28
Celica	133	4	2		18	27
Corona Mk. II	156	6	2	X	17	21
Corona Mk. II Wagon	156	6	2	X	17	21
Volkswagen						
Beetle	97	4	FI		22	33
Rabbit	90	4	2	X	24	38
Dasher	90	4	2	X	23	35
Dasher Wagon	90	4	2	X	23	35
Scirocco	90	4	2	X	24	38
Thing	97	4	FI		22	33
Volvo						
240	121	4	FI		16	26
245 Wagon	121	4	FI		17	24
160	182	6	FI		15	22

LETTERS TO THE EDITOR

BACKFIRE

Address your letters to:
Editor
DRIVER Magazine
AFISC/SEDD
Norton AFB CA 92409

BUYING A CAR IN EUROPE

In the article, "Buying a Car Abroad" (September 1974), you mention that any service member stationed in Europe under the NATO Status-of-Forces agreement may purchase a European car tax-free through the Canadian Forces Base, Europe (CFBE) Exchange System. This is where the service member pays a processing fee of $35. The tax savings in Germany is 11%. In Germany this tax is known as Mehrvertsteuer, and at today's exchange rate the fee is $47.01. This is true for purchasing German-built cars in Germany. However, this is not true for automobiles built outside Germany.

The 43d Military Police Group (Customs) provides American Forces personnel with AE Form 2075—*Application for Import-Export Certificate/Purchase Permit*. By submitting this form in duplicate, a service member may avoid paying the processing fee of this Canadian BX charge and furthermore save transportation charges to Germany by going to the country of the automobile's manufacture and picking it up himself. Payment for the foreign-made automobile must be made to the dealer outside of Germany.

I utilized this form last summer when I bought a new 1974 Volvo. I would recommend that anyone interested in a foreign-made automobile use this procedure. The savings to me amounted to about $175. . . .

SSgt Mike D. Whitfield
1613 Jordan St.
Amarillo, Texas 79106

KEEPING IT LIKE NEW

It may be of interest to DRIVER readers to know that you can keep an older model car almost indefinitely if you are willing to invest the regular expense and manual labor that periodic maintenance requires.

I drive a "nearly new" 1966 Dodge Coronet 440 which I bought brand new. It now has over 121,000 miles and the 361 cubic inch, two-barrel engine's heads have never been removed. It uses one or two quarts of 10W40 Valvoline oil each 1,000 miles. In summertime it uses Shell Rotella 20W40 commercial grade oil.

I attribute the fine mechanical condition of this car to conscientious preventive maintenance that anyone can do. The Backyard Mechanic series has offered many timely tips for novices like me. I acquired most of my lay mechanical knowledge at a new-car get-ready man's home on weekends, paying him $5 an hour for his expert labor and my simultaneous OJT.

A final tip I'd like to pass along is the shrewd practice of purchasing as many replacement parts with lifetime guarantees as possible whenever any such parts on your car wear out. This means items such as shocks, battery, brakes, mufflers, floor mats and air conditioner. My '66 Dodge has all of these items, purchased from Sears and Wards—they have all been either replaced or repaired several times in the 9-year lifespan of my car, costing me practically nothing at each subsequent service.

So my advice is to purchase a new car with every option you personally desire, then take care of it. Before you know it, instead of making new-car payments you'll be socking money away in your credit union. Incidentally, I just made a trip from San Diego to Grand Forks, ND (2,000 miles) pulling a heavy U-Haul trailer over five mountain ranges. I had no car problems whatsoever. . . .

SSgt John G. Thomas
Grand Forks AFB, ND

SOME CLARIFICATION

In regard to the December Backyard Mechanic, we have detected one small error—the step about the possibility of high engine idle after initial start-up needs to be clarified.

The choke high idle cam on the carburetor will cause the engine idle to be higher in cold weather than in warm. The reason for this is that the choke plate is usually in the full closed position in cold weather, thus rotating the cam to its highest position; therefore, the engine idle RPM is increased.

The automatic choke is closed by a thermal actuated spring which has more tension on it when the outside temperature is cold, and less tension when the outside temperature is warm.

We agree that the choke linkage should be checked for freedom of movement. The interior of the choke actuating mechanism should be cleaned to prevent varnish deposits from sticking. As you mention, there are several aerosol products on the market that will do this. A good repair manual will have clear instructions on how to do this.

Your magazine is greatly enjoyed here at Blytheville AFB, where we get a lot of rain, especially in the winter. Keep up the good work and the fine tips on "how to."

MSgt Stephen P. Rusk
Chief, Quality Control/LGTQ
97th Transportation Sq (SAC)
Blytheville AFB, AR 72315

BYM CLINICS

I have been reading your Backyard Mechanic articles and came up with the idea of holding clinics for women and some of the guys around my housing area. How would one start something like this? Could I get hold of BYM reprints as the basic technical data for the course?

How deep we go into the subject will depend on how much material I am able to get hold of. Right now we plan for approximately 10 to 15 people per class.

Leonard A. Crabb
CMAA Div, NAS Barbers Pt
FPO San Francisco 96611

This seems like a great idea. We think a class such as you have in mind should start with the absolute basics—how to check tire pressure, battery levels, hose connections. After you have gotten some idea of the general knowledge the group already has, you will know how fast you can move along. Sorry, we are completely out of Backyard Mechanic reprints, but at 4c to 5c a sheet at a local high speed photo copy shop, photo copies of the one you already have should serve the purpose.

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There's only one copy of DRIVER for every 10 readers